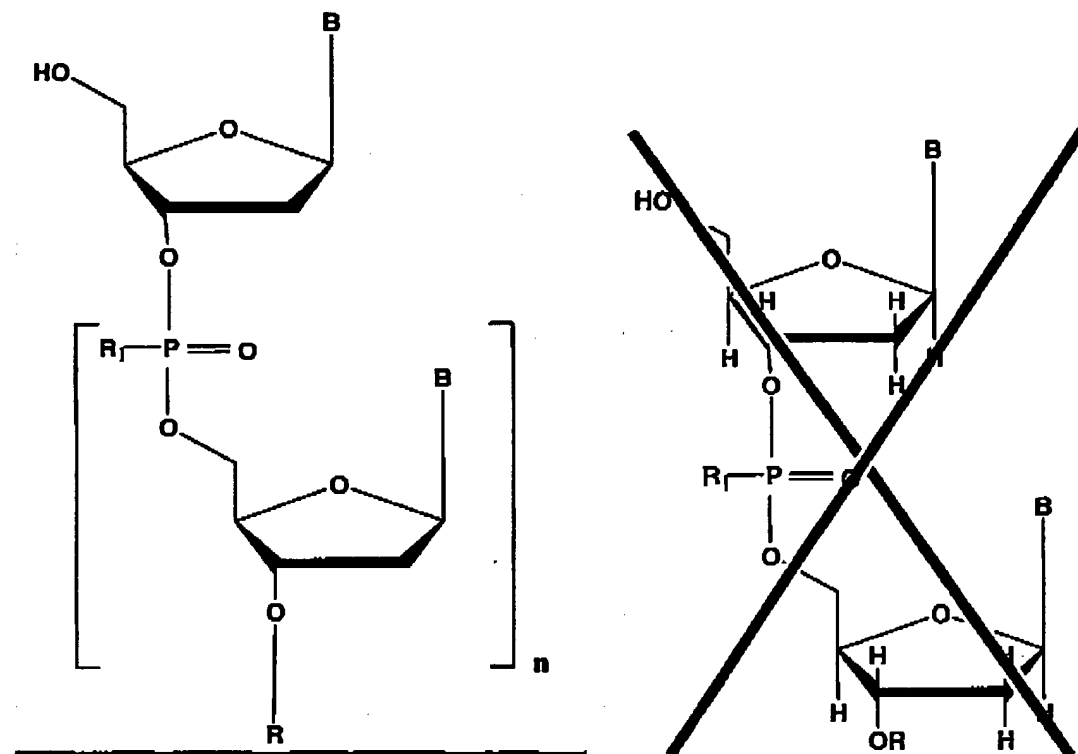


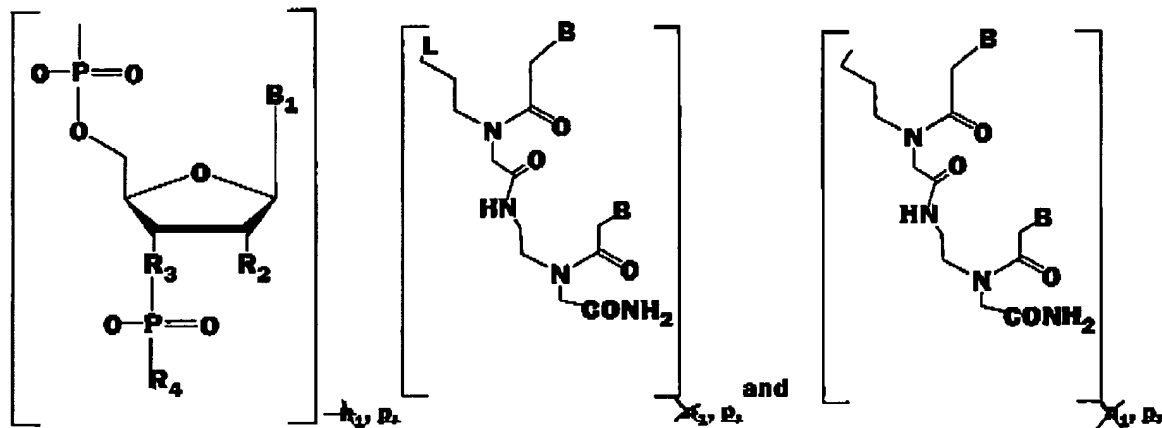
**IN THE CLAIMS**

Amend the claims as follows:

1. (Currently amended) Chimeric oligonucleotides of the general formula I



wherein R is selected from the group consisting of



and

wherein

$n > 10, \leq 20$  is at least 10 and not more than 20.

$R_1 = S-, CH_3, O-$

$B =$  thymine, cytosine, adenine, guanine

$n, p > 3, \leq 17$  is at least 3 and not more than 17.

$B_1 =$  thymine, cytosine, adenine, guanine, 5-propyluracile, 5-propylcytosine;

$R_2 =$  H, F,  $NH_2$ , O-alkyl ( $C_1-C_3$ ), O-allyl, O-methoxyethoxy,

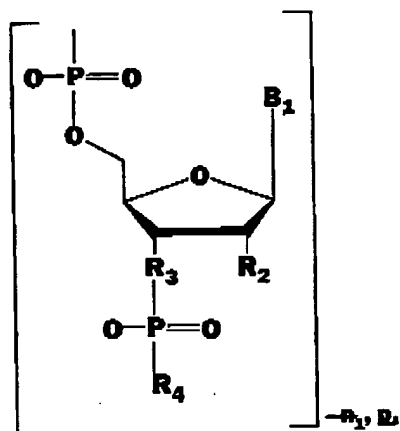
$R_3 =$  NH, O, provided that if  $R_3 = NH$ ,  $R_2 =$  not  $NH_2$ , is O-alkyl ( $C_1-C_3$ ), O-allyl, O-methoxyethoxy,

$R_4 =$  2', 3'-dideoxy-3'-fluoroguanosine, 2', 3'-dideoxy-3'-azidoguanosine, 2', 3'-dideoxy-3'-aminoguanosine, 2', 3'-epoxyguanosine, acyclovir, ganciclovir, 2'-deoxyadenosine, 2'-deoxyguanosine, 2'-deoxycytidine, 2'-deoxythymidine,

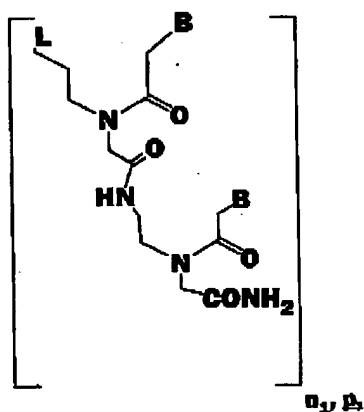
$L = -(PO_2)-OCH_2-COH-CH_2-NH-$  or  $-(PO_2)-OCH_2-CH(CH_2COOH)-(CH_2)_4NH-$ .

~~and wherein each chimeric oligonucleotide comprises a nucleotide sequence capable of hybridizing to the RNA component of the telomerase RNA;~~  
and wherein each chimeric oligonucleotide inhibits telomerase activity.

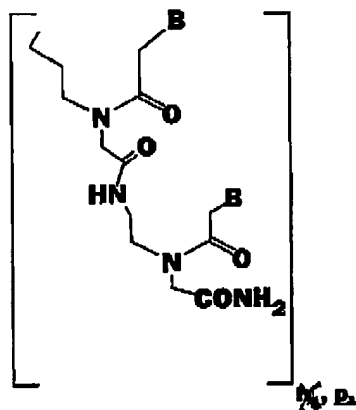
2. (Currently amended) The oligonucleotides according to claim 1, wherein R is



3. (Currently amended) The oligonucleotides according to claim 1, wherein R is



4. (Currently amended) The oligonucleotides according to claim 1, wherein R is



5. (Original) The oligonucleotides according to claim 1, wherein R1 to R4 and B and B1 vary from a nucleotide unit to another nucleotide unit.

6. (Original) The oligonucleotides according to claim 1, wherein the oligonucleotides having a nucleotide sequence is selected from the group consisting of

- 5'-TCAGATTAGTACTCGTCAGAGTTAGGGTTAG-3' (SEQ ID No. 1)
- 5'-TCAGATTAGGACTGCTCAGAGTTAG-3' (SEQ ID No. 2)
- 5'-TCAGATTAGTACTCGTCAGACAGTTAGGGTTAG-3' (SEQ ID No. 3)
- 5'-TCAGATTAGTACTCGTCAGAGTTAGAGTTAG-3' (SEQ ID No. 4)
- 5'-TCAGATTAGGACTGCTCAGAGUUAG-3' (SEQ ID No. 5)
- 5'-TCAGATTAGGACTGCTCAGAUAGUUAG3' (SEQ ID No. 6)
- 5'-TCAGATTAGGACTGCTCAGAGUUAGGGTTAGACAA-3' (SEQ ID No. 7)
- 5'-TCAGATTAGGACTGCGTTAGGGTTAGACAA-3' (SEQ ID No. 8)
- 5'-TCAGATTAGTACTCGTCAGA-O(PO<sub>3</sub>)OCH<sub>2</sub>CH(CH<sub>2</sub>COOH-(CH<sub>2</sub>))<sub>4</sub>-NH-TAGGGTTAGACAA-3' (SEQ ID No. 9)
- 5'-TCAGATTAGTACTCGTCAGAGTTAGGGTTA-azidodeoxyguanosine-3' (SEQ ID No. 10)
- 5'-AATCCTCCCCCAGTTCACCC- GTTAGGGT-3' (SEQ ID No. 11)
- 5'-TCTCCAGCGTGCGCCAT- GUUAGGGUUAG-3' (SEQ ID No. 12)
- 5'-ATGTATGCTGTGGCT- n(L) -GTTAGG-3' (SEQ ID No. 13)
- 5'- G TACTGCTCAGA-GTTAGGGTTAG-3' (SEQ ID No. 14)

5'- GTACTGCTCAGA-GTTAGGGT-3' (SEQ ID No. 15)  
5'- GTACTGCTCAGA-GUUAGGGUUAG-3' (SEQ ID No. 16)  
5'- GTACTGCTCAGA-n(L)-GTTAGG-3' (SEQ ID No. 17)  
5'-GGCCAGCAGCTG- GUUAGGGUUAG-3' (SEQ ID No. 18)  
5'- TGCTCAGA-GUUAGGGUUAG-3' (SEQ ID No. 19)  
5'- TGCTCAGA-n(L)-GTTAGG-3' (SEQ ID No. 20)  
5'- TCAGACATATACTGCTCAGA-n(L)-TAGGGTTAGACAA-3' (SEQ ID No. 21)  
5'- ACT GCT CAG A-GTT AG-3' (SEQ ID No. 22)  
5'- ACT GCT CAG A-GUU AGG GUU AG-3' (SEQ ID No. 23)  
5'- ATA CTG CTC AGA-linker-GTT AGG GTT AG-3' (SEQ ID No. 24)  
5'- TTA GTA CTG CTC AGA-GTT AGG GTT AG-3' (SEQ ID No. 25)  
5'- TCA GAT TAG TAC TGC TCA GA-GTT AG-3' (SEQ ID No. 26)  
5'- TCA GAT TAG TAC TGC TCA GA-GTT AG-3' (SEQ ID No. 27)  
5'-ACT GCT CAG A-GTT AGGGTTAG-3' (SEQ ID No. 28)  
5'-TTAGGG-3' (SEQ ID No. 29).

7. (Currently amended). A method of inhibiting telomerase activity, comprising the administering of chimeric oligonucleotides of claim 1 to a human tumor cell line.

8. (Currently amended). A method of inhibiting telomerase activity in tumor cells in a non-human mammal, *in vivo* treatment of tumours, comprising the administering of chimeric oligonucleotides of claim 1 in a flank region.

9 (Currently amended). The oligonucleotides of claim 1, wherein said oligonucleotide binds binding to telomerase thereby inhibiting ~~inhibits the~~ telomerase catalytic activity.

10 (Currently amended). The oligonucleotides of claim 9 ~~+~~ wherein said binding to telomerase occurs either inside a eukaryotic cell or in the absence of intact eukaryotic cells.

11 (Previously presented). The oligonucleotides of claim 10, wherein said binding to telomerase occurs inside a tumor cell.

12. (New) The method of claim 8, wherein the administering is by an intravenous route.

13. (New) The method of claim 8, wherein the oligonucleotide has the structure described in SEQ ID NO: 1-28.

14. (New) The method of claim 13, wherein the tumor cells are mammalian tumor cells.

15. (New) The method of claim 13, wherein the tumor cells are human tumor cells.

16. (New) The method of claim 7, wherein the oligonucleotide has the structure described in SEQ ID NO: 1-28.

17. (New) The oligonucleotide of claim 9 wherein the bind to telomerase comprises to the telomerase RNA component.